

ABSTRACT OF THE DISCLOSURE

A wire harness apparatus for remotely accessing and controlling a number of synchronized low-cost camera nodes sharing a single cable is provided. The invention converts power, control, and video signals where necessary for long distance remote access including conversion between single-ended and differential signals. Frame synchronization is provided for multiple externally synchronizable camera nodes. A method is provided to generate address data for selection of individual uniquely addressable camera nodes. And, a method to modify the video signal driven from a camera node onto the wire harness apparatus with a code that uniquely identifies that particular camera node. The invention extends the usable range of control while maintaining the cost savings associated with the camera nodes' wiring and installation.